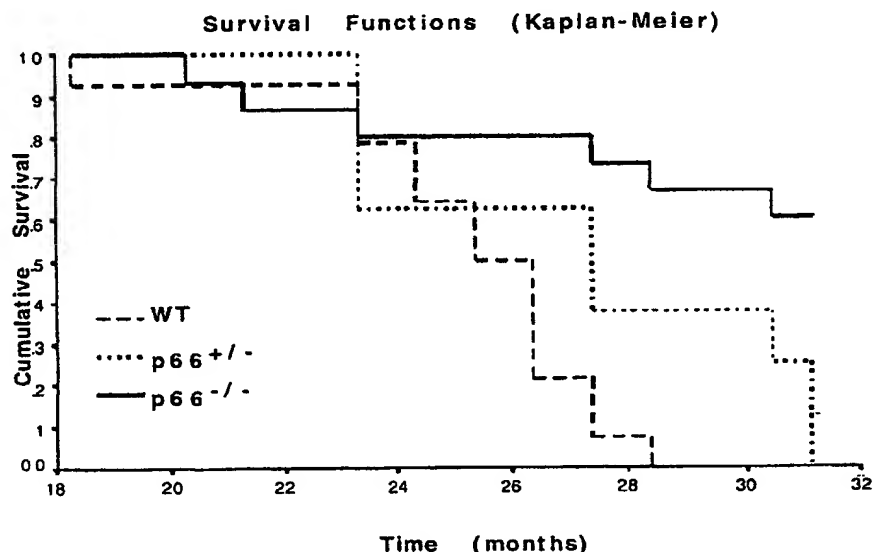




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(54) Title: MATERIALS AND METHODS RELATING TO MODULATION OF p66 EXPRESSION



## (57) Abstract

It has been determined that i) p66<sup>shc</sup> is serine phosphorylated upon UV treatment or oxidative damage; ii) the serine-phosphorylation of p66 by oxidative signals is mediated by Erk1 and p38, as shown both *in vivo* and *in vitro*; iii) ablation of p66<sup>shc</sup> expression by homologous recombination enhances resistance to oxidative damage both *in vitro* and *in vivo*; iv) a serine-phosphorylation defective mutant of p66<sup>shc</sup> is unable to restore a normal stress response in p66<sup>shc</sup> targeted cells; v) mice carrying the p66<sup>shc</sup> targeted mutation have prolonged lifespan.